### Before the Federal Communications Commission Washington, DC 20554

In the Matter of	)	
	)	
Petitions for Emergency Relief to Allow	)	
the Use of E-Rate Funds to Support Remote	)	WC Docket No. 21-31
Learning During the COVID-19 Pandemic	)	

To: The Commission

REPLY COMMENTS OF
NEW AMERICA'S OPEN TECHNOLOGY INSTITUTE
& EDUCATION POLICY PROGRAM
PUBLIC KNOWLEDGE
CONSUMER REPORTS
COMMON SENSE
BENTON INSTITUTE FOR BROADBAND & SOCIETY
ACCESS HUMBOLDT

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New America's Open Technology Institute and Education Policy Program, Public Knowledge, Consumer Reports, Common Sense, the Benton Institute for Broadband & Society, and Access Humboldt (the "Public Interest Organizations" or "PIOs") submit these Reply Comments in response to the *Public Notice* in the above-captioned proceeding. The PIOs are pleased to see a strong and broad consensus among commenters that the Commission should immediately grant the relief requested in the petitions and authorize both more funding and more flexible use of E-Rate funds and facilities to bridge the homework gap and connect students struggling to get online for remote learning during COVID-19 due to a lack of broadband access at home. We urge the Wireline Bureau to act expeditiously on delegated authority.

<sup>&</sup>lt;sup>1</sup> Wireline Competition Bureau Seeks Comment on Petitions for Emergency Relief to Allow the Use of E-Rate Funds to Support Remote Learning During the COVID-19 Pandemic, WC Docket No. 21-31 (Rel. Feb. 1, 2021), <a href="https://docs.fcc.gov/public/attachments/DA-21-98A1.pdf">https://docs.fcc.gov/public/attachments/DA-21-98A1.pdf</a> ("Public Notice"). See Comments of New America's Open Technology Institute & Education Policy Program, Public Knowledge, Consumer Reports, the Benton Institute for Broadband & Society, and Access Humboldt, WC Docket No. 21-31 (Feb. 16, 2021) ("Comments of PIOs"). Unless otherwise noted, all Comments referenced herein were filed in this docket on February 16, 2021.

### I. Introduction and Summary

The PIOs submit these reply comments to highlight the diverse and widespread support in the record for the petitions requesting that the Commission increase E-Rate funding and flexibility to enable schools and libraries to provide broadband connectivity for students to facilitate remote learning during the COVID-19 pandemic crisis. The Commission has the statutory authority to provide all the requested relief, including supplemental funding and a waiver of cost allocation rules and other restrictions so that schools and libraries can choose the best ways to bridge the homework gap given their local circumstances and needs.

The record clearly shows diverse and extensive support for the relief proposed in the petition filed by the Schools, Health, Libraries Broadband (SHLB) Coalition, OTI and other nonprofit groups ("SHLB et al. Petition"), as well as the similar relief sought in petitions filed by the states of Colorado and Nevada. The support for emergency Commission relief consistent with these petitions spans public interest groups, civil rights organizations, large and small telecommunications providers ("ISPs"), technology companies, local governments, local school districts, and libraries. Comments supporting the petitions highlight the educational impact that implementation of this policy would bring. The record demonstrates widespread consensus that the Commission has the legal authority to grant the petitions and to expand E-Rate-supported connectivity off-campus for the essential educational purpose of bridging the homework gap.

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<sup>&</sup>lt;sup>2</sup> Petition for Expedited Declaratory Ruling and Waivers filed by the Schools, Health & Libraries Broadband Coalition, et al., WC Docket No. 13-184, at i-ii (filed Jan. 26, 2021), <a href="https://www.fcc.gov/ecfs/filing/101260036427898">https://www.fcc.gov/ecfs/filing/101260036427898</a> ("SHLB, et al. Petition"); Petition for Waiver on behalf of the State of Colorado, WC Docket No. 13-184, at 4 (filed Sept. 2, 2020), <a href="https://www.fcc.gov/ecfs/filing/10902218280692">https://www.fcc.gov/ecfs/filing/10902218280692</a> ("Colorado Petition"); Letter from Elaine Wynn, President, Nevada State Board of Education, to Chairman Pai, FCC, CC Docket No. 02-6, at 2 (Aug. 10, 2020), <a href="https://www.fcc.gov/ecfs/filing/108212219529231">https://www.fcc.gov/ecfs/filing/108212219529231</a> ("Nevada Petition").

The Commission should ensure that supplemental E-Rate funding for remote learning is technologically neutral and does not pick winners and losers among networking technologies or service providers. Local schools and libraries should be given the flexibility and discretion to use whatever combination of technologies and services they determine will be most effective to facilitate remote learning in their community. Schools and libraries are in the best position to understand the needs of their students and teachers, as well as the physical characteristics of their local area, sources of complementary funding, availability of commercial offerings, and many other factors that impact the decision of how best to extend reliable remote learning connections to student and staff. Schools and libraries should be permitted to pursue whatever solution they determine to be most reliable and cost-effective, as the record demonstrates.

Accordingly, there is strong support in the record for the Commission to be technology neutral and to authorize E-Rate funds to support the widest possible range of technologies, equipment, services, and devices that school districts, schools, and libraries might seek to employ for expanding broadband access. Further, the Commission should reject self-interested arguments opposing the self-provisioning of broadband network connectivity, which has already proven reliable and cost-effective in many low-income school districts, some of which were highlighted in the comments of the Public Interest Organizations.<sup>3</sup> The Wireline Bureau's cost allocation waiver and Declaratory Order providing additional funds should adopt a neutral and inclusive description of eligible services and equipment that gives schools and libraries full flexibility, including the ability to combine different approaches based on local circumstances.

There is also strong support in the record for waiving of the competitive bidding requirements. The PIOs call on the Commission to relax E-Rate rules to streamline the process

<sup>&</sup>lt;sup>3</sup> Comments of PIOs at 12-20.

for schools to offer off-campus connectivity as rapidly as possible. A post-hoc review would meet the emergency nature of the remote learning crisis far better than a cumbersome application or approval process. The record strongly supports the Bureau opening a relatively brief special application window as soon as practicable.

Finally, the Commission should ensure that it includes libraries in its final rules seeking to bridge the homework gap by extending broadband connectivity for remote learning. Libraries have developed several novel and community-driven solutions to further broadband access in their localities during the COVID-19 pandemic. Libraries are pillars of their communities—and before the pandemic they often served as the lynchpin for internet access and education services for entire communities. Since students are typically not able to visit libraries to use their internet for homework, research, and even (during the pandemic) to conduct remote learning sessions, the Commission should use this opportunity to leverage the role of libraries in its efforts to bridge the homework gap and ensure libraries are able to offer those crucial services to constituents.

# II. There is Widespread Consensus that the Commission has the Legal Authority and Should Immediately Act to Extend E-Rate Support for Remote Learning

The record demonstrates a strong and widespread consensus that the Commission should use its authority to grant the relief requested in the SHLB et al. and state petitions, thereby authorizing both more funding and more flexible use of E-Rate funds and facilities to connect students, staff, and patrons for educational purposes at home or other off-campus locations. The vast majority of commenters support the petitions calling for emergency off-campus E-Rate support, including diverse support that includes public interest groups, civil rights organizations, large and small telecommunications providers ("ISPs"), technology companies, schools and

school districts, and library organizations. <sup>4</sup> This support demonstrates the widespread and positive impact that granting the requested relief would bring, as discussed further below. Further, the record shows broad consensus that the Commission has strong legal authority to grant all of the requested relief. Support for this outcome spans the ideological divide and represents diverse parties such as the Wireless Internet Service Providers Association (WISPA), Verizon, Common Sense, Starry, Microsoft, Amazon, Apple, the Information Technology and Innovation Foundation, T-Mobile, and many more.

Millions of students in the U.S. currently do not have access to a reliable home internet service to attend classes and complete assignments in a manner conducive to learning—if at all. The PIOs urge the Commission to heed the warning of the Miami-Dade County Public Schools: "The limitations of the existing E-Rate policy are a barrier to school telecommunications in periods of school closure. Fixing them will strengthen education long-term. . . . With students more reliant than ever on home Internet, not only during closures but to close achievement gaps, we urge you to take decisive policy steps quickly."

<sup>&</sup>lt;sup>4</sup> See e.g., Comments of the American Teachers Association; Comments of National Urban League; Comments of the American Foundation for the Blind; Comments of New Mexico Public School Facilities Authority; Comments of Gigabit Libraries Network; Comments of Microsoft; Comments of the Wireless Internet Service Providers ("Comments of WISPA"); Comments of Common Sense; Comments of Kajeet; Comments of the Internet Association; Comments of Apple; Comments of Amazon; Comments of Verizon; Comments of CTIA; Comments of USTelecom Association ("Comments of USTelecom"); Comments of NCTA; Comments of NTCA—The Rural Broadband Association; Comments of Qualcomm, Inc.; Comments of American Library Association; Comments of OnGo Alliance; Comments of Starry, Inc.; Comments of the Information Technology and Innovation Foundation; Comments of The National Association of Telecommunications Officers and Advisors; Comments of The Council of the Great City Schools; Comments of Miami-Dade County Public Schools; Comments of North Carolina Department of Information Technology; Comments of Illinois Office of Broadband; Comments of the City of Chicago, Chicago Public Library and Chicago Public Schools; Comments of New York City Department of Education; and Comments of Texas School Alliance.

<sup>&</sup>lt;sup>5</sup> Comments of the Miami-Dade County Public Schools at 2 (emphasis in original).

The Commission must address specific inequities as well. The record reflects the particular urgency of granting the requested relief with respect to several vulnerable populations in the country. The PIOs agree with the National Urban League, which has documented that "with rising COVID-19 rates and millions of schools across the country only offering online instruction, students of color are put at a further disadvantage because they are more likely to not have home broadband internet." As a result, "the chronic lack of home broadband is not only a COVID-19 issue; the lack of home broadband has been, and is now more than ever, a civil rights issue of the utmost importance." The American Foundation for the Blind further underscores the importance of home broadband access for blind and low vision students, stating that "expanding access to internet services is undoubtedly 'essential to education' and 'consistent with the public interest, convenience, and necessity' to deliver on students' rights to their education." The New Mexico Public School Facilities Authority and the Gigabit Libraries Network detail the importance of E-Rate in providing broadband access for students in Tribal areas as well.

The record reflects widespread consensus that the Commission has the clear legal authority to grant the petitions and expand E-Rate connectivity off-campus for the purpose of remote learning and bridging the homework gap. The PIOs agree with Microsoft, which highlights the reality that "[t]he Communications Act itself does not restrict off-premises use of E-rate services. The so-called geographic restriction is simply an FCC-created *presumption*, and

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<sup>&</sup>lt;sup>6</sup> Comments of National Urban League at 2.

 $<sup>^{\</sup>prime\prime}$  Id

<sup>&</sup>lt;sup>8</sup> Comments of the American Foundation for the Blind at 1.

<sup>&</sup>lt;sup>9</sup> Comments of the New Mexico Public School Facilities Authority at 4; Comments of Gigabit Libraries Network at 3-4.

one established not because of a parallel statutory requirement, but rather for purposes of administrative ease and to make it easier for schools in preparing their applications."<sup>10</sup>

The PIOs agree with Microsoft and other commenters that claims that the statute limits the Commission's ability to leverage E-Rate funds to support remote learning due to the use of the word "classroom" is premised on the outdated assumption that students engage in instruction and learning only in traditional classrooms located inside school buildings. This is demonstrably not true during the pandemic-induced school closures and is an increasingly outdated assumption based on norms that pre-dated the integration of internet connectivity and online materials into educational instruction and homework broadly. <sup>11</sup>

Moreover, AT&T agrees with the SHLB et al. petitioners that the Commission can use delegated authority to grant the requested relief and allocate E-Rate funds currently held in reserve to fund at-home connectivity for remote learning. AT&T specifically notes that "there is precedent for the Bureau, acting on delegated authority, to commit such funds to a special purpose." Indeed, it is significant that there appear to be no comments in the record that argue the Commission lacks statutory authority to grant the petitions to extend emergency E-Rate-supported broadband access for remote learning.

Although we agree with AT&T that the Commission has the authority to meet this moment, the PIOs urge the Commission to reject AT&T's suggestion that the Commission

<sup>&</sup>lt;sup>10</sup> Comments of Microsoft at 7 (emphasis in original).

<sup>&</sup>lt;sup>11</sup> See Margaret Harding McGill, "The quick FCC fix that would get more students online," Axios (Dec. 4, 2020), <a href="https://www.axios.com/digital-divide-fcc-quick-fix-e-rate-70eab132-4f60-4e50-b194-d107393b05ce.html">https://www.axios.com/digital-divide-fcc-quick-fix-e-rate-70eab132-4f60-4e50-b194-d107393b05ce.html</a> ("Pai has argued the law requires program funding be used in "classrooms" and virtual classrooms don't cut it. An FCC spokesperson said Pai has instead called on Congress to establish and fund a new remote learning initiative."). See also Comments of Information Technology and Innovation Foundation at 3 (taking the position that expansion of the term "classroom" is a "reasonable" construction).

<sup>&</sup>lt;sup>12</sup> Comments of AT&T Services, Inc. at 5 ("Comments of AT&T").

establish an emergency program to address the homework gap "completely separate from the traditional E-Rate program and its contribution base" rather than situate this effort within the established administrative structure and rules (with appropriate waivers) of the E-Rate program. AT&T's request is not only unnecessary, but would likely result in undue complications, delay, and administrative costs at a time when the remote learning crisis presents a problem that is extremely urgent in nature. E-Rate is a well-established program with the relationships and procedures in place to manage the challenge of rapidly assisting schools and libraries to bridge the homework gap during the pandemic. Adding an entirely new set of rules and procedures for a separate new program would add unnecessary burdens for schools and libraries that are already burdened with the significant difficulties of the pandemic.

The E-Rate program is already familiar to schools and libraries. It has a well-known track record of improving broadband access in schools and libraries across the country following the 2014 Modernization Order. As the PIOs and OTI have previously argued, the Bureau can make carryover and reserve funding available most rapidly to address this emergency through a streamlined version of the established, current E-Rate process. The Commission could most efficiently and effectively make use of its existing funds by opening a brief special application window.

<sup>&</sup>lt;sup>13</sup> *Id*. at 3.

<sup>&</sup>lt;sup>14</sup> Amir Nasr, "FCC Report Could Mark Crucial Step To Protecting A Program For School and Library Internet Access," New America's Open Technology Institute Blog Post (March 4, 2019), <a href="https://www.newamerica.org/oti/blog/fcc-report-could-mark-crucial-step-protecting-program-school-and-library-internet-access/">https://www.newamerica.org/oti/blog/fcc-report-could-mark-crucial-step-protecting-program-school-and-library-internet-access/</a>.

<sup>&</sup>lt;sup>15</sup> "OTI Urges FCC to Authorize \$2.2 Billion in Available E-Rate Funds to Connect Students Left Behind During COVID-19 Pandemic," New America's Open Technology Institute Press Release (April 8, 2020), <a href="https://www.newamerica.org/oti/press-releases/oti-urges-fcc-authorize-22-billion-available-e-rate-funds-connect-students-left-behind-during-covid-19-pandemic/">https://www.newamerica.org/oti/press-releases/oti-urges-fcc-authorize-22-billion-available-e-rate-funds-connect-students-left-behind-during-covid-19-pandemic/</a>.

# III. Self-Interested Proposals to Restrict Remote Learning Funds to Particular Providers or Technologies Will Harm Students and Lead to Less Cost-Effective Solutions

The Commission should ensure that an emergency expansion of the E-Rate program is technologically neutral and empowers schools and libraries to use whatever services and equipment they determine is most effective to bridge the homework gap given the unique circumstances of their local community. There is strong support in the record for the Commission to allow E-Rate funds to support a wide range of technologies, equipment, service providers, and devices. The PIOs agree with WISPA, which argues: "Funding to support off-campus learning should likewise be technology- and provider-neutral." At the same time, the PIOs believe that giving schools and libraries the greatest possible flexibility is not justified primarily to level the playing field among private ISPs, as WISPA suggests, but to ensure that anchor institutions are able to use E-Rate support to pursue locally-appropriate solutions to the remote learning chasm.<sup>17</sup>

The PIOs urge the Commission to explicitly state that wireless towers, radios, and other fixed wireless equipment are deemed eligible services for expanded E-Rate support. We agree with the City of Chicago, Chicago Public Library and Chicago Public Schools, which states: "Schools and libraries, in collaboration with the City and other partners, should be allowed to use E-rate discounts to purchase any goods and services necessary to connect students and patrons off-campus but engaged in educational purpose activities. This should include hotspots, but also the purchase of infrastructure such as fixed wireless equipment to extend Internet access from school campuses and library buildings." The PIOs similarly agree with the Internet

<sup>16</sup> Comments of WISPA at 4-5.

<sup>&</sup>lt;sup>17</sup> See id.

<sup>&</sup>lt;sup>18</sup> Comments of the City of Chicago, Chicago Public Library and Chicago Public Schools at 3.

Association's assertion that "E-Rate funds should be used to adopt both hardware and software solutions that enable students and teachers to successfully access the internet for educational purposes" through support for "antennas, routers, wireless access points, or other tools to provide students with needed broadband or mobile internet access."19

Several commenters from the technology industry also highlight the benefits of allowing support for a wide range of technologies, equipment and devices in order to facilitate a diverse range of connectivity solutions. Microsoft urges the Commission to add "wireline and wireless network equipment and services necessary for remote learning" to the E-Rate Eligible Services List including, specifically, hotspots, mobile wireless towers, fixed towers that support fixed wireless services, and "other services or equipment if they can reasonably be expected to support remote learning including devices that combine a modem and a router." 20 Kajeet underscores a reality that is central to the question of supported services and equipment that also illustrates why an inclusive and technology-neutral list of eligible services and equipment is most appropriate:

Providing connectivity to the homes of students and their teachers generally requires **both** network connectivity to those homes (a wireless or wireline broadband internet access service), and network terminal equipment—such as modems or hotspots—to allow students and educators to connect to that network. The Bureau should make such equipment explicitly eligible for E-rate funding because the connectivity that the E-rate program is designed to support generally cannot be provided without the presence of such equipment.<sup>21</sup>

Further, the PIOs agree with Amazon, which aptly notes: "The Commission relied on Section 254(c)(3) to find that equipment within schools, including wiring and routers, is eligible for support. Similarly, it should rely on this section to determine that modems, connected

<sup>&</sup>lt;sup>19</sup> Comments of Internet Association at 9-10.

<sup>&</sup>lt;sup>20</sup> Comments of Microsoft at 4.

<sup>&</sup>lt;sup>21</sup> Comments of Kajeet at 4-5 (emphasis in original).

devices, and cloud services that support remote learning are eligible for E-Rate support."<sup>22</sup> Apple similarly argues that the Commission should "include wireless hotspots, routers, and modems, as well as 'take-home mobile computing devices' and other connected devices that educators choose to deploy to further virtual learning" in its definition of eligible equipment. <sup>23</sup> The PIOs urge the Commission to heed these well-informed recommendations and to adopt a broad definition of eligible equipment and services that explicitly includes a variety of diverse technologies to best service the public interest by providing schools and libraries the choice to select the solution most amenable to the local circumstances.

Although most commenters support this flexible and technology-neutral approach, a few commenters make self-interested pleas for the Commission to favor one service or technology over others. The PIOs urge the Commission to reject such limitations, as doing so would artificially select winners and losers in the marketplace while also, more crucially, failing to serve the interests of students and teachers first and foremost. The PIOs strongly oppose Verizon's request that the Commission disqualify self-provisioning from E-Rate support.

Verizon argues that self-provisioning is "ill-suited to helping schools respond to the emergency" because it is costly and time-consuming to deploy the networks necessary to provide service to residential areas, suggesting instead a sort of "trust us" approach that requires local schools and libraries to depend exclusively on commercial ISPs.<sup>24</sup>

Verizon's argument against self-provisioning is unconvincing on several levels. It ignores the fact that the E-Rate program offers schools and libraries a discount to procure broadband networks for learning—but not full funding—which ensures that educational institutions have an

<sup>&</sup>lt;sup>22</sup> Comments of Amazon at 5-6.

<sup>&</sup>lt;sup>23</sup> Comments of Apple at 3.

<sup>&</sup>lt;sup>24</sup> Comments of Verizon at 12-14.

incentive to choose the most cost-effective option due to the fact that the schools and libraries are still on the hook for the bill at the end of the day.

Verizon's argument is not only self-serving, it also willfully ignores the herculean efforts many school districts have already undertaken, often in partnership with their community or with private companies, to extend connectivity to the school's network for remote learning to students without adequate internet access. Local schools and libraries know their own circumstances best—they have the most pertinent knowledge of the most cost-effective solution given a variety of local factors. OTI has chronicled a wide variety of innovative solutions that schools, school districts, and libraries have developed and deployed without the help of the E-Rate program or the Commission in other capacities.<sup>25</sup> The PIOs summarized some of these school district case studies in initial comments in this proceeding.<sup>26</sup> These school districts took the initiative to build out what they have found to be very reliable and cost-effective networks or network extensions. Because they had very limited financial support, these CBRS, EBS, and community Wi-Fi networks in all cases targeted the most low-income neighborhoods in their district with the highest share of students without internet access. This is forward-looking innovation to close the homework gap that the Commission should encourage, not single out for exclusion.

The experience of these innovative districts demonstrates that Verizon's alleged concern that because some districts lack "ongoing investment and technical capabilities . . . self-provisioning risks leaving students with no or inadequate service" is misinformed and flawed.<sup>27</sup>

<sup>&</sup>lt;sup>25</sup> See Michael Calabrese and Amir Nasr, "The Online Learning Equity Gap: Innovative Solutions to Connect All Students at Home," New America's Open Technology Institute Report (Nov. 17, 2020), <a href="https://www.newamerica.org/oti/reports/online-learning-equity-gap/">https://www.newamerica.org/oti/reports/online-learning-equity-gap/</a> ("OTI E-Rate Report").

<sup>&</sup>lt;sup>26</sup> Comments of PIOs at 12-21.

<sup>&</sup>lt;sup>27</sup> Comments of Verizon at 13.

First, while the technical capacities of school districts vary, many school systems and libraries have very sophisticated IT personnel who have the ability to self-provision at least as well as ISP technicians. There is no reason to have them stand by, waiting for the carriers to work their way down their customer lists. At a minimum, school districts will have more leverage to negotiate better wholesale rates if local ISPs know they have options to partner with their municipality or with other companies to deploy wireless connections to school networks, as some have done.

Second, Verizon's argument misinterprets the issue by flipping it upside down. Unlike programs such as Lifeline and the recently-developed Emergency Broadband Benefit, which are tailored to subsidize service to serve a household, additional E-Rate funding and rule flexibility is intended to provide the specific connectivity solution that individual students need for remote learning, a challenge that the local institutions are in the best position to determine based on local circumstances.

Further, Verizon's argument ignores the hard work that has been done thanks to the E-Rate program. As the New Mexico Public School Facilities Authority (PSFA) highlights:

Through the E-rate program and BDCP funding, New Mexico has been able to add over 600 miles of new fiber. This growth has incentivized providers to invest in additional backhaul, middle-mile, and last mile infrastructure. . . . PSFA has adopted an approach of creating regional consortia to pool resources, increase bandwidth, and decrease costs... There are various technologies that can be used to extend school networks, but the current E-rate rules are stifling many creative solutions. If the FCC were to target funding for supporting these capital projects PSFA believes it will provide greater benefit to the schools and its students. <sup>28</sup>

Similarly, the PIOs strongly disagree with USTelecom's blatantly self-serving proposal that the Commission prohibit the use of E-Rate funds for "wireless towers, radios, and equipment associated with extending Wi-Fi networks." USTelecom, in a manner similar to that of

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<sup>&</sup>lt;sup>28</sup> Comments of the New Mexico Public School Facilities Authority at 6.

<sup>&</sup>lt;sup>29</sup> Comments of USTelecom Association at 4-5.

Verizon, seeks rules designed to financially benefit its members by restricting competing providers and technologies, including competition by school district partnerships with WISPs or with companies such as Crown Castle Fiber that are leveraging "private LTE" solutions on CBRS spectrum to connect students in a very cost-effective manner, as the PIO's comments described.<sup>30</sup>

The PIOs believe that the sort of anti-competitive restrictions proposed by USTelecom and Verizon are particularly inappropriate in a proceeding that seeks to bring immediate relief to students and teachers struggling to conduct remote learning during a pandemic. The Commission should not foreclose on any potential solution to the homework gap if even a single school district or library finds it cost-effective and reliable.

The Commission should also give schools and libraries the flexibility not only to innovate, but also to use hybrid approaches tailored to local circumstances. For example, the Public Interest Organizations described the hybrid and cost-effective approach adopted by San Jose, California.<sup>31</sup> The city and its local school districts have formed a partnership that combines paying for thousands of mobile hotspot subscriptions for some students, while also expanding the school-sponsored community Wi-Fi network that already covers some of the densest and poorest neighborhoods within the city's East Side Union School District (ESUSD).<sup>32</sup> The school district, which built its original Wi-Fi network to address the homework gap, has found that thanks to a cost-sharing partnership with the city (which provides siting, electricity, and fiber backhaul), in

<sup>&</sup>lt;sup>30</sup> *Id.* at 11.

<sup>&</sup>lt;sup>31</sup> Comments of PIOs at 12, 15.

<sup>&</sup>lt;sup>32</sup> Sharon Noguchi, "Free Wi-Fi: San Jose, East Side Schools to Bring Internet to Neighborhoods," *The Mercury News* (Oct. 3, 2016), <a href="https://www.mercurynews.com/2016/10/03/free-wi-fi-sanjose-east-side-schools-to-bring-internet-toneighborhoods/">https://www.mercurynews.com/2016/10/03/free-wi-fi-sanjose-east-side-schools-to-bring-internet-toneighborhoods/</a>.

densely-populated neighborhoods the cost-per-student-connected is lower than purchasing monthly broadband subscriptions and provides a sustainable, long-term solution to the homework gap.

USTelecom's proposal would be particularly damaging because it could render partnerships with fixed wireless ISPs, or the use of TVWS-powered equipment, ineligible for E-Rate funds—both of which have served as the backbone for several innovative homework gap solutions profiled by the PIOs in initial comments and in more detail by OTI in its recent report. The reason fixed wireless and unlicensed spectrum are so popular as solutions to the homework gap—and the digital divide broadly—is because of the cost-effective nature of these solutions, the speed with which they can be deployed, and the fact that they authenticate students directly to the school's network.

Fixed wireless services and TVWS networks are particularly effective and cost-effective in rural, Tribal, and other hard-to-serve areas with low-population density. As the Broadband Access Coalition argued in the context of the C-Band proceeding:

Fixed P2MP service remains the most cost-effective way to bring broadband service to millions of Americans, primarily in rural areas. . . . Capital costs to deploy fixed wireless systems are a fraction – about one-seventh the cost – of fiber and are still able to provide high-throughput broadband service. They are also far more cost-effective per gigabyte for this purpose than mobile systems. This comes about primarily because of their longer range through use of highly-directional client antennas [] that have considerable gain compared to mobile client antennas, and are mounted at a higher location above ground, typically near rooftop height. . . . Fixed P2MP systems also can bring service to unserved areas much more rapidly than fiber. . . . An access point can be mounted on an existing structure and placed into service almost immediately . . . . <sup>34</sup>

<sup>&</sup>lt;sup>33</sup> Comments of PIOs at 12-21; OTI E-Rate Report.

<sup>&</sup>lt;sup>34</sup> Comments of the Broadband Access Coalition, GN Docket No. 18-122 (Oct. 29, 2018), at 12-13. Note: Among the PIOs, New America's Open Technology Institute and Public Knowledge were both members of the Broadband Access Coalition.

An additional problem with the restrictions supported by Verizon and USTelecom is that adequate ISP coverage is frequently not available to all areas of a school district and is most commonly lacking in the most low-income or low-density areas. Population density and the quality of cellular coverage can vary greatly not only between neighboring districts, but even within a school district. As the PIOs noted and OTI highlighted in its E-Rate report, McAllen, Texas, where roughly 25 percent of the residents live below the poverty line, offers a demonstration of this phenomenon in action. <sup>35</sup> Local circumstances and the opportunity to partner with a local provider led McAllen's school district to begin deploying a private LTE network leveraging CBRS spectrum. This is a perfect example of why local institutions should be permitted to implement the solutions that best suit their situations through self-provisioning:

The district knew it had to do something to connect its students, but getting a large number of homes connected to high-speed service on a quick timeline is difficult. In fact, the district originally opted to lend 8,000 Wi-Fi hotspots to students without home broadband access, but the district superintendent quickly realized this solution was inadequate. Too many families still had to resort to going to parks and fast food restaurants to actually connect to their online learning materials. Problems included spotty mobile service, both in terms of coverage and bandwidth, as well as the ongoing costs of mobile carrier monthly subscriptions for connectivity, a financially unsustainable long-term remedy for the homework gap... As a more sustainable alternative, . . . McAllen's network uses free CBRS spectrum on a GAA basis as the connectivity for Wi-Fi access points distributed to student households that lack internet access. 36

In short, the anti-competitive restrictions suggested by Verizon and USTelecom would preclude schools in rural and Tribal communities from choosing what they find to be the most reliable and cost-effective solutions for extending remote learning to students and teachers.

There are innovative, cost-effective, and proven connectivity solutions, including for low-income urbanized areas like San Jose, that leverage technologies including meshed Wi-Fi networks and

<sup>35</sup> Comments of PIOs at 16; OTI E-Rate Report at 32.

<sup>&</sup>lt;sup>36</sup> OTI E-Rate Report at 32.

CBRS as part of durable and sustainable strategies to close the homework gap.<sup>37</sup> The Commission should explicitly state that wireless towers, radios, and other fixed wireless equipment are deemed eligible services for expanded E-Rate support.

## IV. The Commission Should Grant Schools and Libraries Flexibility in E-Rate Rules Needed to Provide Immediate Aid in Form of Expanded Broadband Connectivity

The record shows strong support from schools for the Commission to not only make dedicated funding available to extend to facilitate remote learning, but also to grant added flexibility for eligible entities under the E-Rate rules. E-Rate rules should be relaxed to offer off-campus connectivity and to allow the widest possible range of technologies and equipment to bridge the homework gap, as detailed above. There is strong record support for the proposals by SHLB et al. and other petitioners to waive cost allocation rules and to broadly grant schools and libraries flexibility to ensure expedient provision of broadband connectivity to students who currently lack the internet access and services needed to engage in remote learning.

Support for the petitions come from schools nationwide, including a diverse set of communities that include New York City, New Mexico, Chicago, and school districts in Texas and Miami-Dade County in Florida. As the Miami-Dade County Public Schools state: "E-Rate funding must have the flexibility to fund home access gaps—at minimum during school closures—and without artificial funding caps that would restrict K-12 use of allocated funds." Teachers support the petitions as well. The American Federation of Teachers argues that

<sup>&</sup>lt;sup>37</sup> Comments of PIOs at 12-21; OTI E-Rate Report.

<sup>&</sup>lt;sup>38</sup> Comments of the New York City Department of Education; Comments of the New Mexico Public School Facilities Authority; Comments of the City of Chicago, Chicago Public Library and Chicago Public Schools; Comments of the Texas School Alliance.

<sup>&</sup>lt;sup>39</sup> Comments of the Miami-Dade Public Schools at 2.

"[t]apping into unused E-Rate funds using existing E-Rate discount methodologies to prioritize funding requests, and waiving time-consuming E-Rate program rules, are measures that should be taken to expedite responses to the acute digital needs during the pandemic."<sup>40</sup>

There is general consensus from schools in the record calling for the Commission to waive the competitive bidding requirements for E-Rate support. The New York City Department of Education (NYC DOE) argues that a waiver of the competitive bidding process "would allow the NYC DOE to select an appropriate vendor for an e-Rate eligible service, with the most costeffective pricing, in a timely manner."<sup>41</sup> The Council of Great City Schools further elaborates that thanks to a waiver of competitive bidding rules, "[s]tudents, staff, and schools will benefit from the ability to award a contract as soon as possible after posting a Form 470, and districts may still be subject to other state and local competitive bidding rules," adding that the "traditional timeline to create, competitively bid, and award RFPs during a global pandemic is unreasonable, and the Commission should afford districts the flexibility to act quickly."42 The New Mexico Public School Facilities Authority proposes that purchases previously made should have the competitive bidding requirements waived "as there is no means to bring these purchases back into compliance," with the caveat that "many of these purchases were made in compliance with state and local rules and through master service agreements that were competitively procured."43 Some commenters, such as the Miami-Dade County Public Schools and Texas

<sup>&</sup>lt;sup>40</sup> Comments of American Federation of Teachers at 2.

<sup>&</sup>lt;sup>41</sup> Comments of the New York City Department of Education at 1.

<sup>&</sup>lt;sup>42</sup> Comments of the Council of the Great City Schools at 2.

<sup>&</sup>lt;sup>43</sup> Comments of the New Mexico Public School Facilities Authority at 7.

School Alliance, argue that schools should be allowed to follow local competitive bidding rules instead of those of the Commission.<sup>44</sup>

### V. The Commission Should Address the Needs of Libraries as it Expands E-Rate

As part of the Commission's effort to bridge the homework gap and extend connectivity to students who lack adequate broadband at home, the Commission should ensure its rules are tailored to support the work of libraries. As the American Library Association and the Gigabit Libraries Network detail, libraries have piloted several innovative and community-driven solutions during the COVID-19 pandemic to offer broadband service through a variety of different methods. When libraries were able to operate normally, prior to the pandemic, they often served as both the hub for internet access services and education services for communities. As Gigabit Libraries Network (GLN) observes: "Libraries often are the sole source of no-fee [public] internet access in a community." The PIOs agree with GLN that the Commission "should make sure any action it takes to allow schools to use E-rate funds to connect students beyond school campuses will explicitly apply to libraries serving their patrons as well." 45

The PIOs urge the Commission to adopt the recommendations of ALA and GLN to fully include libraries in any emergency E-Rate initiative and to adopt flexible rules that encourage libraries to support the work of schools in improving the broadband access of students and teachers in their communities. In particular, the Commission agrees with the American Library Association ("ALA") that the Commission should

1. Ensure library applicants are able to provide emergency services to library patrons, including but not limited to K-12 students and teachers;

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<sup>&</sup>lt;sup>44</sup> Comments of the Miami-Dade County Public Schools at 4; Comments of the Texas School Alliance at 1

<sup>&</sup>lt;sup>45</sup> Comments of the Gigabit Libraries Network at 3.

- 2. Allow for flexibility for both hardware and implementation of eligible services for locally driven solutions to best meet off-campus connectivity needs of patrons and/or students who lack home access;
- 3. Balance accountability and oversight with expedient funding distribution; [and]
- 4. Ensure predictability of funding available for applicants.<sup>46</sup>

Further, the Commission should, as Gigabit Libraries Network argues, take novel broadband services such as "kiosks" and "fixed library access stations" into account in its E-Rate rules. Allowing E-Rate expenditures and waiving cost allocation rules for these innovations will empower libraries to extend services beyond its walls in additional ways that reach patrons where they live and are often more cost-effective (per user) that methods such as renting hotspots to members of the community, or simply leaving the Wi-Fi network turned on for patrons to access it from the parking lot. As Gigabit Libraries Network highlights:

Installing these stations in every neighborhood will serve as an interim, if partial, solution for those waiting for new home connections and importantly, serve as a public backstop addressing the digital divide in our most vulnerable communities. . . . we estimate the average cost for a single library kiosk at between one and a few thousand dollars per station, depending on configuration and connectivity costs. Once installed these library service portals would become a permanent supplement to the nation's connectivity infrastructure that increases access, equity and resilience in every community. 47

The PIOs urge the Commission to include internet kiosks as one of many tools available for the Commission—and in turn, libraries—to use to bridge the digital divide and alleviate the harms of the homework gap.

<sup>&</sup>lt;sup>46</sup> Comments of the American Library Association at 3.

<sup>&</sup>lt;sup>47</sup> Comments of the Gigabit Libraries Network at 5.

#### VI. Conclusion

The E-Rate program represents a significant opportunity for the Commission to bridge a longstanding homework gap that has widened into a chasm during the pandemic emergency. We urge the Commission to grant all of the relief requested in the SHLB et al. and state petitions, thereby extending E-Rate support for schools and libraries to provide broadband connectivity to students who lack adequate internet access at home. The record shows overwhelming support for expanding E-Rate support for off-campus connectivity. The Commission should further ensure that E-Rate support for remote learning is technology neutral and allows any networking technology, equipment, or service that schools and libraries determine are appropriate and cost-effective given their unique local circumstances. The Commission should also waive certain rules—such as cost allocation and competitive bidding requirements—to reduce burdens on schools and libraries continuing to operate in a pandemic.

Respectfully submitted,

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